COST ANALYSIS

Preliminary cost estimates for the identified alternatives were developed including capital and operation and maintenance (O&M) costs. The costs consider financing the initial project capital costs, including assumptions about potential funding sources, and annual operations and maintenance expenses. Projected annual costs were divided by the projected annual benefits to obtain unit costs for each alternative. The range of costs were $1.06 (for a volume of 2.6 billion gallons per year) to $4.28 (for 90 million gallons per year) per thousand gallons. The unit cost for the overall alternatives is approximately $1.80 per thousand gallons. This cost was based on FDEP's State Revolving Fund (SRF) loan structures and assumed no grant funding. These cost estimates include estimated construction costs for the various wells, pumping stations and pipelines that make up the projects, including engineering and contingencies. The cost summary is included as Attachment A.

To estimate the debt service for each project the following assumptions and considerations were used:

- The initial project costs will be financed over a twenty (20) year period at a rate of 3.5%;
- The cost to be financed includes administrative fees equal to two percent (2%) of the initial project capital costs as required by the terms and conditions of the SRF Loan Program;
- The cost to be financed includes funding of a loan repayment reserve equal to three percent (3%) of the initial project capital costs being borrowed as required by the terms and conditions of the SRF Loan Program, and
- The cost to be financed includes thirty-six (36) months of capitalized interest based upon construction funding draws during the assumed project engineering and construction period.
- Total capital costs for each sub-region include debt service and an allowance for debt service coverage equal to 25% of the annual debt service.
- The allowance for debt service coverage is based upon the SRF Loan Program's minimum debt service coverage requirement of 15% adjusted upward to also reflect the need for funding capital renewals and replacements that may occur during the term of the loan agreement.

The annual operations and maintenance costs for each alternative included:

- The cost of electricity for pumping;
- General maintenance of the facilities;
- Submersible pump maintenance;
- Adjustment of injection rates and measurement of water quality;
- Weekly water sample procurement for laboratory analysis;
- Semiannual calibration of flowmeters and gauges;
- Preparation of monthly regulatory reports; and
- Cost for chemicals, pretreatment, and filtration prior to injection.

The annual operations and maintenance costs were added to the annual capital related financing costs to estimate the total costs for each project and sub-region. The cost per thousand gallons for each sub-region was divided by the total annual production of each alternative to obtain unit costs. It was assumed alternatives would serve provide an irrigation water benefit for only 180 days per year.

It is important to note preexisting deficiencies at the treatment plants considered in this study were not included in the analysis. It was assumed all plants would be providing the appropriate treatment to meet primary and secondary standards.